

Applicant: James E. Moon, et al.  
 Serial No.: 09/698,329  
 Filing Date: October 27, 2000  
 For:

Att'y Docket No. 14917.1.1  
 Group: 1741

INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND  
 LIQUID CHROMATOGRAPHY SYSTEM AND METHOD



INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANT

U.S. Patent Documents

| Examiner<br>Initial* | Patent<br>Number | Issue<br>Date | Name     | Class             | Sub<br>Class | Filing<br>Date |          |
|----------------------|------------------|---------------|----------|-------------------|--------------|----------------|----------|
| <u>AS</u>            | A1               | 4,842,701     | 06/27/89 | Smith, et al      | 204          | 180.1          | 04/06/87 |
| <u>AS</u>            | A2               | 5,182,366     | 01/26/93 | Huebner, et al    | 530          | 334            | 05/15/90 |
| <u>AS</u>            | A3               | 5,641,400     | 06/24/97 | Kaltenbach, et al | 210          | 198.2          | 10/23/95 |
| <u>AS</u>            | A4               | 5,872,010     | 02/16/99 | Karger, et al     | 436          | 173            | 07/03/96 |
| <u>AS</u>            | A5               | 5,917,184     | 06/29/99 | Carson, et al     | 250          | 288            | 02/07/97 |
| <u>AS</u>            | A6               | 5,969,353     | 10/19/99 | Hsieh             | 250          | 288            | 01/22/98 |
| <u>AS</u>            | A7               | 5,993,633     | 11/30/99 | Smith, et al      | 204          | 601            | 07/31/97 |
| <u>AS</u>            | A8               | 5,994,696     | 11/30/99 | Tai, et al        | 250          | 288            | 01/27/98 |

Other Documents

(including author (if listed), title, relevant pages, date of publication including at least month and year).

Examiner  
Initial\*

|           |     |  |
|-----------|-----|--|
| <u>AS</u> | A9  | Amish Desai, Yu-Chong Tai, Michael T. Davis, and Terry D. Lee, "A MEMS Electrospray Nozzle for Mass Spectroscopy," 1997 International Conference in Solid-State Sensors and Actuators, Chicago, June 16-19, 1997, p. 927-930                 |
| <u>AS</u> | A10 | David P. H. Smith, "The Electrohydrodynamic Atomization of Liquids," IEEE Transactions on Industry Applications, Vol. IA-22, No. 3, p. 527-535, May-June, 1986   |
| <u>AS</u> | A11 | Stephen C. Jacobson, Roland Hergenroder, Lance B. Koutny, and, J. Michael Ramsey, "High-Speed Separations on a Microchip," Anal. Chem., April 1, 1994, 66, 1114-1118   |
| <u>AS</u> | A12 | Stephen C. Jacobson, Roland Hergenroder, Lance B. Koutny, and, J. Michael Ramsey, "Open Channel Electrochromatography on a Microchip," Anal. Chem. 1994, 66, 2369-2373   |
| <u>AS</u> | A13 | D. Jed Harrison, Karl Fluri, Kurt Seiler, Zhonghui Fan, Carlo S. Effenhauser, and, Andreas Manz, "Micromachining a Miniaturized Capillary Electrophoresis-Based Chemical Analysis System on a Chip," Science, Vol. 261, August 1993, 895-897 |

Examiner:

Date Considered:

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Sheet 2 of 2

Applicant: James E. Moon, et al.  
Serial No.: 09/698,329  
Filing Date: October 27, 2000  
For: INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND LIQUID CHROMATOGRAPHY SYSTEM AND METHOD

Att'y Docket No. 14917.1.1  
Group: 1741



- AB A14 R.S. Ramsey and J.M. Ramsey, "Generating Electrospray from Microchip Devices Using Electroosmotic Pumping," Analytical Chemistry, Vol. 69, No. 6, March 15, 1997, p. 1174-1178
- AB A15 Matthias Wilm and Matthias Mann, "Analytical Properties of the Nanoelectrospray Ion Source," Analytical Chemistry, Vol. 68, No. 1, January 1, 1996, p. 1-8
- AB A16 Qifeng Xue, Frantisek Foret, Yuriy M. Dunayevskiy, Paul M. Zavacky, Nicol E. McGruer, and Barry L. Karger, "Multichannel Microchip Electrospray Mass Spectrometry," Analytical Chemistry, Vol. 69, No. 3, February 1, 1997, p. 426-430
- AB A17 Malcolm Dole, L.L. Mack, R.L. Hixes, R.C. Mobley, L.D. Ferguson, and M.B. Alice, "Molecular Beams of Macroions," The Journal of Chemical Physics, Volume 49, Number 5, September 1, 1968, p. 2240-2249
- AB A18 Masamichi Yamashita and John B. Fenn, Journal of Chemical Physics, Volume 88, 1984, p. 4451-4459

#### References Cited by Applicants

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

The reference designations "A1," "A2," etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A," "B," "C," etc. on Office Action Form PTO-1142.

GA:DATA\WPDOCS2\UBS\1491711.149

Examiner: Robert Soderquist Date Considered: 9/16/02  
\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Sheet 1 of 1

Applicant:

James E. Moon, et al.

Serial No.:

09/698,329

Filing Date:

October 27, 2000

Att'y Docket No. 14917.1.1

Group: 1741

For:

INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND  
LIQUID CHROMATOGRAPHY SYSTEM AND METHODSUPPLEMENTAL INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANTU.S. Patent Documents

| <u>Examiner<br/>Initial*</u> | <u>Patent<br/>Number</u> | <u>Issue<br/>Date</u> | <u>Name</u>    | <u>Class</u> | <u>Sub<br/>Class</u> | <u>Filing<br/>Date</u> |
|------------------------------|--------------------------|-----------------------|----------------|--------------|----------------------|------------------------|
| <u>AS</u> A1                 | 6,110,343                | 08/29/2000            | Ramsey, et al. | 204          | 601                  | 10/04/96               |

**References Cited by Applicants**

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

The reference designations "A1," "A2," etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A," "B," "C," etc. on Office Action Form PTO-1142.

G:\DATA\WPDOCS\CM\1491711s.149.doc

Examiner:

Date Considered:

*Andrew S. Soderquist*

9/12/02

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant:

James E. Moon, et al.

Serial No.:

09/698,329

Att'y Docket No. 14917.1.1

Filing Date:

October 27, 2000

Group: 1741



INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND  
LIQUID CHROMATOGRAPHY SYSTEM AND METHOD

SUPPLEMENTAL INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANT

U.S. Patent Documents

| Examiner<br>Initial* | Patent<br>Number | Issue<br>Date | Name                 | Class | Sub<br>Class | Filing<br>Date |
|----------------------|------------------|---------------|----------------------|-------|--------------|----------------|
| <u>AB</u> A1         | 4,480,259        | 10/30/84      | Kruger, et al.       | 346   | 140          | 07/30/82       |
| <u>AB</u> A2         | 4,489,259        | 12/18/84      | White, et al.        | 318   | 696          | 04/29/82       |
| <u>AB</u> A3         | 4,490,728        | 12/25/84      | Vaught, et al.       | 346   | 1.1          | 10/07/82       |
| <u>AB</u> A4         | 4,590,482        | 05/20/86      | Hay, et al.          | 346   | 1.1          | 12/14/83       |
| <u>AB</u> A5         | 5,162,650        | 11/10/92      | Bier                 | 250   | 288          | 01/25/91       |
| <u>AB</u> A6         | 5,423,964        | 06/13/95      | Smith, et al.        | 204   | 180          | 08/02/93       |
| <u>AB</u> A7         | 5,481,110        | 01/02/96      | Krishnaswamy, et al. | 250   | 288          | 10/07/94       |
| <u>AB</u> A8         | 5,501,883        | 03/26/96      | Ishikawa, et al.     | 428   | 1            | 07/27/94       |
| <u>AB</u> A9         | 5,523,566        | 06/04/96      | Fuerstenau, et al.   | 250   | 282          | 07/20/94       |
| <u>AB</u> A10        | 5,536,939        | 07/16/96      | Freidhoff, et al.    | 250   | 281          | 10/07/94       |
| <u>AB</u> A11        | 5,541,408        | 07/30/96      | Sittler              | 250   | 288          | 02/17/95       |
| <u>AB</u> A12        | 5,563,639        | 10/08/96      | Cameron, et al.      | 347   | 34           | 10/30/94       |
| <u>AB</u> A13        | 5,608,217        | 03/04/97      | Franzen, et al.      | 250   | 288          | 03/10/95       |
| <u>AB</u> A14        | 5,640,010        | 06/17/97      | Twerenbold           | 250   | 281          | 05/11/95       |
| <u>AB</u> A15        | 5,644,131        | 07/01/97      | Hansen               | 250   | 292          | 05/22/96       |
| <u>AB</u> A16        | 5,705,813        | 01/06/98      | Apffel, et al.       | 250   | 288          | 11/01/95       |
| <u>AB</u> A17        | 5,716,825        | 02/10/98      | Hancock, et al.      | 435   | 286.5        | 11/01/95       |
| <u>AB</u> A18        | 5,747,815        | 05/05/98      | Young, et al.        | 250   | 423          | 07/24/96       |
| <u>AB</u> A19        | 5,501,893        | 03/26/96      | Laermer, et al.      | 428   | 161          | 11/27/93       |
| <u>AB</u> A20        | 5,750,988        | 05/12/98      | Apffel et al.        | 250   | 288          | 02/03/97       |

Examiner:

*Anton S. S. S. S. S.*

Date Considered:

*9/12/02*

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant: James E. Moon, et al.  
Serial No.: 09/698,329  
Filing Date: October 27, 2000  
For:

Att'y Docket No. 14917.1.1  
Group: 1741

INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND  
LIQUID CHROMATOGRAPHY SYSTEM AND METHOD

Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

The reference designations "A1," "A2," etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A," "B," "C," etc. on Office Action Form PTO-1142.

*No refs.*

Examiner:

Date Considered:

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant: James E. Moon, et al.  
 Serial No.: 09/698,329  
 Filing Date: October 27, 2000  
 For: INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND  
 LIQUID CHROMATOGRAPHY SYSTEM AND METHOD

Att'y Docket No. 14917.1.1

Group: 1741

U.S. Patent Documents

| Examiner<br>Initial* | Patent<br>Number | Issue<br>Date | Name            | Class | Sub<br>Class | Filing<br>Date |
|----------------------|------------------|---------------|-----------------|-------|--------------|----------------|
| <u>q8</u> A21        | 6,032,876        | 03/07/00      | Bertsche et al. | 239   | 418          | 12/01/98       |
| <u>q8</u> A22        | 6,066,848        | 05/23/00      | Kassel et al.   | 250   | 288          | 12/03/98       |

Foreign Patent Documents

| Examiner<br>Initial* | Document<br>Number        | Publ.<br>Date | Country or<br>Patent Office | Sub<br>Class | Trans-<br>lation |
|----------------------|---------------------------|---------------|-----------------------------|--------------|------------------|
| <u>q8</u> A23        | EP259,796                 | 01/03/96      | Europe                      |              | N/A              |
| <u>q8</u> A24        | EP 565,027                | 03/05/97      | Europe                      |              | N/A              |
| <u>q8</u> A25        | EP 588,952                | 09/01/99      | Europe                      |              | N/A              |
| <u>q8</u> A26        | EP 677,322                | 10/18/95      | Europe                      |              | N/A              |
| <u>q8</u> A27        | EP 692,713                | 01/17/96      | Europe                      |              | N/A              |
| <u>q8</u> A28        | EP 860,858                | 08/26/98      | Europe                      |              | N/A              |
| <u>q8</u> A29        | GB 2,287,356              | 09/13/95      | Great Britain               |              | N/A              |
| <u>q8</u> A30        | WO 00/52455               | 09/08/00      | PCT                         |              | N/A              |
| <del>A31</del>       | <del>PCT/US00/34999</del> |               | <del>PCT</del>              |              | <del>N/A</del>   |
| <del>A32</del>       | <del>PCT/US01/01785</del> |               | <del>PCT</del>              |              | <del>N/A</del>   |

Other Documents

(including author (if listed), title, relevant pages, date of publication including at least month and year).

Examiner  
Initial\*

q8 A33 John H. Knox, "Theoretical Aspects of LC with Packed and Open Small-Bore Columns," Journal of Chromatographic Science, Vol. 18, September, 1980, pages 453-461.

q8 A34 James N. Alexander IV, "Development of a Nano-electrospray Mass Spectrometry Source

Examiner:

Date Considered:

*Robert Soderquist* 9/12/02  
 \*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant: James E. Moon, et al.  
Serial No.: 09/698,329  
Filing Date: October 27, 2000  
For: INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND LIQUID CHROMATOGRAPHY SYSTEM AND METHOD

Att'y Docket No. 14917.1.1  
Group: 1741

Rapid *for Nanoscale Liquid Chromatography and Sheathless Capillary Electrophoresis,*  
Communication in mass Spectrometry, 12, July, 1998, pages 1187-1191.

48 A35 Jörg P. Kutter, Stephen C. Jacobson, and J. Michael Ramsey, "Integrated Microchip Device with Electrokinetically Controlled Solvent Mixing for Isocratic and Gradient Elution in Micellar Electrokinetic Chromatography," Analytical Chemistry, Vol. 69, No. 24, December 1997, pages 5165-5171.

48 A36 Bing He, Niall Talt, Fred Regnier, "Fabrication on Nanocolumns for Liquid Chromatography," Analytical Chemistry, Vol. 70, No. 18, September, 1998, Pages 3790-3797.

48 A37 Matthias S. Wilm, Matthias Mann, "Electrospray and Taylor-Cone theory, Dole's beam of macromolecules at last?," International Journal of Mass Spectrometry and Ion Processes and Ion Processes, June, 1994, pages 167-180.

48 A38 David C. Gale and Richard D. Smith, "Small Volume and Low Flow-rate Electrospray Ionization Mass Spectrometry of Aqueous Samples," Rapid Communications in Mass Spectrometry, Vol. 7, September, 1993, pages 1017-1021.

48 A39 Richard B. Cole, "Electrospray Ionization Mass Spectrometry," John Wiley & Sons, Inc., 1997, pages 1-62.

#### References Cited by Applicants

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Examiner:

Date Considered:

*Robert Sothberg*  
\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Applicant: **James E. Moon, et al.**  
Serial No.: 09/698,329  
Filing Date: October 27, 2000  
For: INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY  
AND LIQUID CHROMATOGRAPHY SYSTEM AND METHOD

Sheet 1 of 1

Att'y Docket No. 14917.1.1  
Group: 1741

**RECEIVED**

JUL 12 2001

TECH CENTER 1600/29

SUPPLEMENTAL INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANTU.S. Patent Documents

| <u>Examiner</u><br><u>Initial*</u> | <u>Patent</u><br><u>Number</u> | <u>Issue</u><br><u>Date</u> | <u>Name</u>  | <u>Class</u> | <u>Sub</u><br><u>Class</u> | <u>Filing</u><br><u>Date</u> |
|------------------------------------|--------------------------------|-----------------------------|--------------|--------------|----------------------------|------------------------------|
| <u>AB</u> A1                       | 6,245,227                      | June 12, 2001               | Moon, et al. | 210          | 198                        | 10/17/1998                   |

**References Cited by Applicants**

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citation not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

original of the form will be entered into the application file.

The reference designations "A1," "A2," etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A," "B," "C," etc. on Office Action Form PTO-1142.

Examiner:

*Robert Seelquist*

Date Considered:

*9/12/02*

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Applicant:

James E. Moon, et al.

Serial No.:

09/698,329

Att'y Docket No. 14917.1.1

Filing Date:

October 27, 2000

Group: 1741

For:

INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND  
LIQUID CHROMATOGRAPHY SYSTEM AND METHOD

SUPPLEMENTAL  
INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANTS

**RECEIVED**  
MAR 13 2002  
TC 1100

U.S. Patent Documents

| Examiner<br>Initial* | Patent<br>Number | Issue<br>Date | Name              | Class | Sub<br>Class | Filing<br>Date |
|----------------------|------------------|---------------|-------------------|-------|--------------|----------------|
| <u>as</u> A1         | 3,538,744        | 11/10/760     | Karasek           | 73    | 23.1         | 11/09/67       |
| <u>as</u> A2         | 3,738,759        | 6/12/73       | Dittrich, et al.  | 356   | 208          | 4/16/70        |
| <u>as</u> A3         | 3,915,652        | 10/28/75      | Natelson          | 23    | 259          | 12/16/74       |
| <u>as</u> A4         | 4,056,324        | 11/1/77       | Göhde             | 356   | 246          | 5/5/76         |
| <u>as</u> A5         | 4,356,722        | 11/2/82       | Bunce, et al.     | 73    | 53           | 11/5/80        |
| <u>as</u> A6         | 4,366,118        | 12/28/82      | Bunce, et al.     | 422   | 57           | 6/13/79        |
| <u>as</u> A7         | 4,369,664        | 1/25/83       | Bunce, et al.     | 73    | 864.12       | 10/24/80       |
| <u>as</u> A8         | 4,459,267        | 7/10/84       | Bunce, et al.     | 422   | 100          | 5/20/82        |
| <u>as</u> A9         | 4,593,728        | 6/10/86       | Whitehead, et al. | 141   | 98           | 11/14/83       |
| <u>as</u> A10        | 4,708,782        | 11/24/87      | Andresen, et al.  | 204   | 299          | 9/15/86        |
| <u>as</u> A11        | 4,879,097        | 11/7/89       | Whitehead, et al. | 422   | 67           | 4/4/86         |
| <u>as</u> A12        | 4,891,120        | 1/2/90        | Sethi, et al.     | 204   | 299          | 6/8/87         |
| <u>as</u> A13        | 4,908,112        | 3/13/90       | Pace              | 204   | 299          | 6/16/88        |
| <u>as</u> A14        | 4,983,038        | 1/8/91        | Ohki, et al.      | 356   | 246          | 4/7/88         |
| <u>as</u> A15        | 4,999,493        | 3/12/91       | Allen, et al.     | 250   | 288          | 4/24/90        |
| <u>as</u> A16        | 5,015,845        | 5/14/91       | Allen, et al.     | 250   | 288          | 6/1/90         |
| <u>as</u> A17        | 5,110,745        | 5/5/92        | Kricka, et al.    | 436   | 87           | 6/1/89         |
| <u>as</u> A18        | 5,126,022        | 6/30/92       | Soane, et al.     | 204   | 180.1        | 2/28/90        |
| <u>as</u> A19        | 5,132,012        | 7/21/92       | Miura, et al.     | 210   | 198.2        | 6/22/89        |

COPY OF PAPERS  
ORIGINALLY FILED

Examiner:

*John Soderquist*

Date Considered:

*9/12/02*

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant:

James E. Moon, et al.

Serial No.:

09/698,329

Att'y Docket No. 14917.1.1

Filing Date:

October 27, 2000

Group: 1741

For:

INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND  
LIQUID CHROMATOGRAPHY SYSTEM AND METHOD

RECEIVED  
MAR 13 2002  
10:10:00

|               |           |          |                    |     |       |          |
|---------------|-----------|----------|--------------------|-----|-------|----------|
| <u>CB</u> A20 | 5,180,480 | 1/19/93  | Manz               | 204 | 299   | 9/13/92  |
| <u>CB</u> A21 | 5,245,185 | 9/14/93  | Busch, et al       | 250 | 288   | 11/5/91  |
| <u>CB</u> A22 | 5,269,900 | 12/14/93 | Jorgenson, et al   | 204 | 299   | 9/13/90  |
| <u>CB</u> A23 | 5,283,036 | 2/1/94   | Hofmann, et al     | 422 | 70    | 2/5/92   |
| <u>CB</u> A24 | 5,296,114 | 3/22/94  | Manz               | 204 | 180.1 | 11/30/92 |
| <u>CB</u> A25 | 5,296,375 | 3/22/94  | Kricka, et al      | 435 | 291   | 5/1/92   |
| <u>CB</u> A26 | 5,302,533 | 4/12/94  | Kricka             | 436 | 537   | 4/10/92  |
| <u>CB</u> A27 | 5,304,487 | 4/19/94  | Wilding, et al     | 435 | 291   | 5/1/92   |
| <u>CB</u> A28 | 5,306,621 | 4/26/94  | Kricka             | 435 | 7.91  | 10/16/90 |
| <u>CB</u> A29 | 5,328,578 | 7/12/94  | Gordon             | 204 | 180.1 | 6/15/93  |
| <u>CB</u> A30 | 5,331,159 | 7/19/94  | Apffel, Jr., et al | 250 | 288   | 1/22/93  |
| <u>CB</u> A31 | 5,332,481 | 7/26/94  | Guttman            | 204 | 182.8 | 11/13/91 |
| <u>CB</u> A32 | 5,338,427 | 8/16/94  | Shartle, et al     | 204 | 299   | 2/26/93  |
| <u>CB</u> A33 | 5,349,186 | 9/20/94  | Ikononou, et al    | 250 | 288   | 6/25/93  |
| <u>CB</u> A34 | 5,374,834 | 12/20/94 | Geis, et al        | 257 | 239   | 10/12/93 |
| <u>CB</u> A35 | 5,376,252 | 12/27/94 | Ekström, et al     | 204 | 299   | 11/10/92 |
| <u>CB</u> A36 | 5,387,329 | 2/7/95   | Foos, et al        | 204 | 415   | 4/9/93   |
| <u>CB</u> A37 | 5,401,376 | 3/28/95  | Foos, et al        | 204 | 415   | 3/11/94  |
| <u>CB</u> A38 | 5,401,963 | 3/28/95  | Sittler            | 250 | 288   | 11/1/93  |
| <u>CB</u> A39 | 5,415,841 | 5/16/95  | Dovich, et al      | 422 | 68.1  | 8/18/94  |
| <u>CB</u> A40 | 5,421,980 | 6/6/95   | Guttman            | 204 | 299   | 7/8/94   |
| <u>CB</u> A41 | 5,427,946 | 6/27/95  | Kricka, et al      | 435 | 291   | 1/21/94  |
| <u>CB</u> A42 | 5,429,734 | 7/4/95   | Gajar, et al       | 204 | 299   | 10/12/93 |
| <u>CB</u> A43 | 5,486,335 | 1/23/96  | Wilding, et al     | 422 | 55    | 4/24/95  |

COPY OF PAPERS  
ORIGINALLY FILED

Examiner:

Date Considered:

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant: James E. Moon, et al.

Serial No.: 09/698,329

Att'y Docket No. 14917.1.1

Filing Date: October 27, 2000

Group: 1741

For: INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND LIQUID CHROMATOGRAPHY SYSTEM AND METHOD



|               |           |          |                    |     |       |          |
|---------------|-----------|----------|--------------------|-----|-------|----------|
| <u>AB</u> A44 | 5,498,392 | 3/12/96  | Wikling, et al     | 422 | 68.1  | 9/19/94  |
| <u>AB</u> A45 | 5,512,131 | 4/30/96  | Kumar, et al       | 156 | 655.1 | 10/4/93  |
| <u>AB</u> A46 | 5,512,451 | 4/30/96  | Kricka             | 435 | 28    | 3/25/94  |
| <u>AB</u> A47 | 5,572,023 | 11/5/96  | Caprioli           | 250 | 288   | 5/30/95  |
| <u>AB</u> A48 | 5,652,427 | 7/29/97  | Whitehouse, et al  | 250 | 288   | 5/14/96  |
| <u>AB</u> A49 | 5,877,495 | 3/2/99   | Takada, et al      | 250 | 288   | 8/7/95   |
| <u>AB</u> A50 | 6,005,245 | 12/21/99 | Sakairi, et al     | 250 | 281   | 8/29/97  |
| <u>AB</u> A51 | 6,060,705 | 5/9/00   | Whitehouse, et al  | 250 | 288   | 12/10/97 |
| <u>AB</u> A52 | 6,114,693 | 9/5/00   | Hirabayashi, et al | 250 | 288   | 4/27/99  |
| <u>AB</u> A53 | 6,245,227 | 6/12/01  | Moon, et al        | 210 | 198.2 | 9/17/98  |

Duplicate

## U.S. Published Patent Application Documents

| Examiner Initial* | Patent App. Number | Publ Number  | Name         | Filing Date |
|-------------------|--------------------|--------------|--------------|-------------|
| <u>AS4</u>        | 09/745,629         | 2001-0001455 | Davis, et al | 12/21/00    |
| <u>AS5</u>        | 09/745,652         | 2001-0001460 | Davis, et al | 12/21/00    |
| <u>AS6</u>        | 09/745,779         | 2001-0001456 | Davis, et al | 12/21/00    |
| <u>AS7</u>        | 09/746,866         | 2001-0001474 | Davis, et al | 12/21/00    |
| <u>AS8</u>        | 09/747,080         | 2001-0001452 | Davis, et al | 12/21/00    |

RECEIVED  
MAR 13 2002  
TC 1100

COPY OF PAPERS  
ORIGINALLY FILED

## Foreign Patent Documents

| Examiner Initial* | Document Number | Publ Date | Country or Patent Office | Sub Class | Class | Translation |
|-------------------|-----------------|-----------|--------------------------|-----------|-------|-------------|
| <u>AS9</u>        | DE 43 18 407    | 12/1994   | Germany                  | 250       | 288   | No          |
| <u>AS60</u>       | EP 637,998      | 7/1996    | Europe                   | 50        | 288   | N/A         |
| <u>AS61</u>       | EP 639,223      | 7/1996    | Europe                   | 250       | 288   | N/A         |

Examiner:

Robert Soderquist

Date Considered:

9/12/02

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant:

James E. Moon, et al.

Serial No.:

09/698,329

Att'y Docket No. 14917.1.1

Filing Date:

October 27, 2000

Group: 1741

For:

INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND LIQUID CHROMATOGRAPHY SYSTEM AND METHOD



|               |              |        |               |     |     |     |
|---------------|--------------|--------|---------------|-----|-----|-----|
| <u>GB</u> A62 | GB 2 260 282 | 4/1993 | Great Britain | 280 | 288 | N/A |
| <u>GB</u> A63 | WO 92/03720  | 3/1992 | PCT           | 250 | 288 | N/A |
| <u>GB</u> A64 | WO 96/04547  | 2/1996 | PCT           | 250 | 288 | N/A |
| <u>GB</u> A65 | WO 96/14933  | 5/1996 | PCT           | 250 | 288 | N/A |
| <u>GB</u> A66 | WO 96/14934  | 5/1996 | PCT           | 250 | 288 | N/A |
| <u>GB</u> A67 | WO 96/15269  | 5/1996 | PCT           | 250 | 288 | N/A |

Other Documents

(including author (if listed), title, relevant pages, date of publication including at least month and year).

Examiner

Initial\*

GB A68 Andren, Per E., et al., "Micro-Electrospray: Zeptomole/Attomole per Microliter Sensitivity for Peptides," 1994, American Society for Mass Spectrometry, pp. 867-869.

GB A69 Angell, James B., et al., "Silicon Micromechanical Devices," 1983, Scientific American, pp. 44-55.

GB A70 Beavis, Ronald C., et al., "Automated Dry Fraction Collection for Microbore High-Performance Liquid Chromatography-Mass Spectrometry, 1986, Journal of Chromatography, 359, pp. 489-497.

GB A71 Beavis, R.C., et al., "Off-Line Coupling of a Microbore High-Performance Liquid Chromatograph to a Secondary Ion-Time of Flight Mass Spectrometer," 1990, Analytical Chemistry, pp. 1259-1264.

GB A72 Burggrat, Norbert, et al., "Synchronized Cyclic Capillary Electrophoresis - A Novel Approach to Ion Separations in Solution", October, 1993, Journal of High Resolution Chromatography, Vol. 16, pp. 594-596.

GB A73 Cheng, Jing, et al., "Chip PCR.II. Investigation of Different PCR Amplification Systems in Microfabricated Silicon-Glass Chips," 1996, Nucleic Acids Research, Vol. 24, No. 2, pp. 380-385.

GB A74 Chu, Yen-Ho, et al., "Affinity Capillary Electrophoresis-Mass Spectrometry for Screening Combinatorial Libraries," 1996, Journal of the American Chemical Society, pp. 7827-7835.

GB A75 Cowan, S., et al., "An On-Chip Miniature Liquid Chromatography System: Design, Construction and Characterization," 1995, Micro Total Analysis Systems, pp. 295-298.

GB A76 Davis, Michael T., et al., "A Microscale Electrospray Interface for On-Line, Capillary Liquid Chromatography/Tandem Mass Spectrometry of Complex Peptide Mixtures," 1995, Analytical Chemistry, 67, pp. 4549-4556.

Examiner:

Robert Soderquist

Date Considered:

9/7/02

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

RECEIVED  
MAR 13 2002  
TC 1100  
COPY OF PAPERS  
ORIGINALLY FILED

Applicant:

James E. Moon, et al.

Serial No.:

09/698,329

Att'y Docket No. 14917.1.1

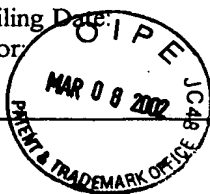
Filing Date:

October 27, 2000

Group: 1741

For:

INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND LIQUID CHROMATOGRAPHY SYSTEM AND METHOD

AB A71

Dent, M., et al., "Electric Sample Splitter for Capillary Zone Electrophoresis," 1985, Journal of Chromatography, 320, pp. 159-165.

AB A78

Doherty, Steven J., et al., "Rapid On-Line Analysis Using a Micromachined Gas Chromatograph Coupled to a Bench-Top Quadrupole Mass Spectrometer," 1994, LC-GC Vol. 12, No. 11, pp. 846-850.

AB A79

Effenhauser, Carlo S., et al., "High-Speed Separation of Antisense Oligonucleotides on a Micromachined Capillary Electrophoresis Device," 1994, Analytical Chemistry, 66, pp. 2949-2953.

AB A80

Effenhauser, Carlo S., et al., "Glass Chips for High-Speed Capillary Electrophoresis Separations with Submicrometer Plate Height," 1993, Analytical Chemistry, 65, pp. 2637-2642.

AB A81

Effenhauser, Carlo S., et al., "Manipulation of Sample Fractions on a Capillary Electrophoresis Chip," July 1, 1995, Analytical Chemistry, Vol. 67, No. 13, pp. 2284-2287.

AB A82

Elwenspoek, M., et al., "Silicon Microstructures for Fluid Handling," 1994, Analysis Magazine, pp. 1-4.

AB A83

Emmett, Mark R., et al., "Micro-Electrospray Mass Spectrometry; Ultra-High-Sensitivity Analysis of Peptides and Proteins," 1994, American Society for Mass Spectrometry, pp. 605-613.

AB A84

Fan, Zhonghui H., et al., "Micromachining of Capillary Electrophoresis Injectors and Separators on Glass Chips and Evaluation of Flow at Capillary Intersections," January 1, 1994, Analytical Chemistry, Vol. 66, No. 1, pp. 177-184.

AB A85

Fang, Ling, et al., "On-Line Time-of-Flight Mass Spectrometric Analysis of Peptides Separated by Capillary Electrophoresis," November 1, 1994, Analytical Chemistry, Vol. 66, No. 21, pp. 3696-3701.

AB A86

Figuerola, Alvaro, et al., "High-Performance Immobilized Metal Affinity Chromatography of Proteins on Iminodiacetic and Acid Silica-Based Bonded Phases," 1986, Journal of Chromatography, 371, pp. 335-352.

AB A87

Harrison, D. Jed, et al., "Rapid Separation of Fluorescein Derivatives Using a Micromachined Capillary Electrophoresis System," 1993, Analytica Chimica Acta, 283, pp. 361-366.

AB A88

Harrison, D. Jed, et al., "Capillary Electrophoresis and Sample Injection Systems Integrated on a Planar Glass Chip," 1992, Analytical Chemistry, pp. 1926-1932.

AB A89

Harrison, D. Jed, et al., "Towards Miniaturized Electrophoresis and Chemical Analysis Systems on Silicon; An Alternative to Chemical Sensors," 1993, Sensors and Actuators, pp. 107-116.

AB A90

Jacobson, Stephen C., et al., "Microchip Electrophoresis with Sample Stacking," 1995, Electrophoresis, 15, pp. 481-486.

AB A91

Jacobson, Stephen C., et al., "Fused Quartz Substrates for Microchip Electrophoresis," 1995, Analytical Chemistry, 67, pp. 2059-2063.

AB A92

Jacobson, Stephen C., et al., "Microchip Capillary Electrophoresis with an Integrated Postcolumn Reactor," October 15, 1994, Analytical Chemistry, Vol. 66, No. 20, pp. 3472-3476.

COPY OF PAPERS  
ORIGINAL FILEDRECEIVED  
MAR 13 2002  
T.C. 1700

Examiner:

Arthur Sedergunst

Date Considered:

9/12/02

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant:

James E. Moon, et al.

Serial No.:

09/698,329

Att'y Docket No. 14917.1.1

Filing Date:

October 27, 2000

Group: 1741

For:

INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND LIQUID CHROMATOGRAPHY SYSTEM AND METHOD

AB A93

Jacobson, Stephen C., et al., "Effects of Injection Schemes and Column Geometry on the Performance of Microchip Electrophoresis Devices," 1994, Analytical Chemistry, 66, pp. 1107-1113.

AB A94

Jacobson, Stephen C., et al., "Integrated Microdevice for DNA Restriction Fragment Analysis," 1996, Analytical Chemistry, 68, pp. 720-723.

AB A95

Jacobson, Stephen C., et al., "Precolumn Reactions with Electrophoretic Analysis Integrated on a Microchip," 1994, Analytical Chemistry, 66, pp. 4127-4132.

AB A96

Jansson, Marten, et al., "Micro Vials on a Silicon Wafer for Sample Introduction in Capillary Electrophoresis," 1992, Journal of Chromatography, 626, pp. 310-314.

AB A97

Ko, Wen H., et al., "Semiconductor Integrated Circuit Technology and Micromachining," pp. 109-168. Undated.

AB A98

Komer, Roman, et al., "Nano Electrospray Combined with a Quadrupole Ion Trap for the Analysis of Peptides and Protein Digests," 1996, American Society for Mass Spectrometry, pp. 150-156.

AB A99

Koutney, Lance B., et al., "Microchip Electrophoretic Immunoassay for Serum Cortisol," 1996, Analytical Chemistry, 68, pp. 18-22.

AB A100

Kruger, M. Scott, et al., "Durable Gold-Coated Fused Silica Capillaries for Use in Electrospray Mass Spectrometry," 1995, Analytical Chemistry, 67, pp. 385-389.

AB A101

Manz, A., et al., "Micromachining of Monocrystalline Silicon and Glass for Chemical Analysis Systems," 1991, Trends in Analytical Chemistry, Vol. 10, No. 5, pp. 144-149.

AB A102

Manz, Andreas, et al., "Planar Chips Technology for Miniaturization and Integration of Separation Techniques into Monitoring Systems," 1992, Journal of Chromatography, 593, pp. 253-258.

AB A103

Manz, Andreas, et al., "Planar Chips Technology for Miniaturization of Separation Systems: A Development Perspective in Chemical Monitoring," 1993, Advances in Chromatography, pp. 1-67.

AB A104

Manz, A., et al., "Design of an Open-Tubular Column Liquid Chromatography Using Silicon Chip Technology," 1990, Sensors and Actuators, BI, pp. 249-255.

AB A105

Manz, Andreas, et al., "Miniaturization of Separation Techniques Using Planar Chip Technology," July, 1993, Journal of High Resolution Chromatography, Vol. 16, pp. 433-436.

AB A106

Manz, Andreas, et al., "Planar Chip Technology for Capillary Electrophoresis," 1994, Fresenius Journal of Analytical Chemistry, 348, pp. 567-571.

AB A107

Moore, Alvin W., Jr., et al., "Microchip Separations of Neutral Species via Micellar Electrokinetic Capillary Chromatography," November 15, 1995, Analytical Chemistry, Vol. 67, No. 22, pp. 4184-4189.

AB A108

Nichols, William, et al., "CE-MS for Industrial Applications Using a Liquid Junction with Ion-Spray and CF-FAB Mass Spectrometry," 1992, LC-GC, Vol. 10, No. 9, pp. 676-686.

Examiner:

Arden Schuchman

Date Considered:

9/12/02

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

RECEIVED  
MAR 13 2002  
TC 1/00

COPY OF PAPERS  
ORIGINALLY FILED

Applicant:

James E. Moon, et al.

Serial No.:

09/698,329

Att'y Docket No. 14917.1.1

Filing Date:

October 27, 2000

Group: 1741

For:

INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND LIQUID CHROMATOGRAPHY SYSTEM AND METHOD



- AS A109 Ocvirk, Gregor, et al., "High Performance Liquid Chromatography Partially Integrated onto a Silicon Chip," 1995, Analytical Methods and Instrumentation, pp. 74-82.
- CS A110 Oliveres, Jose A., et al., "On-Line Mass Spectrometric Detection for Capillary Zone Electrophoresis," 1987, Analytical Chemistry, 59, pp. 1230-1231.
- AS A111 Overton, E.B., et al., "Development of a Temperature Programmed Microchip, High Resolution Gas Chromatograph/Mass Spectrometer for Volatile Organic Analysis," pp. 395-398.
- CS A112 Petersen, Kurt, "Biomedical Applications of MEMS," 1996, IEEE, pp. 239-242.
- CS A113 Raymond, Daniel E., et al., "Continuous Sample Pretreatment Using a Free-Flow Electrophoresis Device Integrated onto a Silicon Chip," September 15, 1994, Analytical Chemistry, Vol. 68, No. 18, pp. 2858-2865.
- AS A114 Roeraade, Johan, "Nano-Sized Systems for Bioanalysis (abstract)," Royal Institute of Technology, Sweden, pp. 3, 19 & 63.
- AS A115 Seler, Kurt, et al., "Electroosmotic Pumping and Valveless Control of Fluid Flow within a Manifold of Capillaries on a Glass Chip," October 15, 1994, Analytical Chemistry, Vol. 66, No. 20, pp. 3485-3491.
- CS A116 Seler, Kurt, et al., "Planar Glass Chips for Capillary Electrophoresis: Repetitive Sample Injection, Quantitation, and Separation Efficiency," 1993, Analytical Chemistry, Vol. 65, No. 10, pp. 1481-1488.
- CS A117 Shoffner, Mann A., et al., "Chip PCR. I. Surface Passivation of Microfabricated Silicon-Glass Chips for PCR," 1996, Nucleic Acids Research, Vol. 24, No. 2, pp. 375-379.
- AS A118 Sjolander, Stefan, et al., "Integrated Fluid Handling System for Biomolecular Interaction Analysis," 1991, Analytical Chemistry, 63, pp. 2338-2345.
- AS A119 Smith, R.D., et al., "New Developments in Microscale Separations and Mass Spectrometry for Biomonitoring: Capillary Electrophoresis and Electrospray Ionization Mass Spectrometry," 1993, Journal of Toxicology and Environmental Health, pp. 147-158.
- AS A120 Smith, Richard D., et al., "Improved Electrospray Ionization Interface for Capillary Zone Electrophoresis-Mass Spectrometry," 1988, Analytical Chemistry, Vol. 60, pp. 1948-1952.
- AS A121 Valaskovic, Gary A., et al., "Attomole-Sensitivity Electrospray Source of Large Molecule Mass Spectrometry," October 15, 1995, Analytical Chemistry, Vol. 67, No. 20, pp. 3802-3805.
- AS A122 Wahl, Jon H., et al., "Sheathless Capillary Electrophoresis-Electrospray Ionization Mass Spectrometry Using 10  $\mu$ m I.D. Capillaries: Analyses of Tryptic Digests of Cytochrome C," 1994, Journal of Chromatography A, 659, pp. 217-222.
- AS A123 Wang, Xuan-Qi, et al., "Polymer-Based Electrospray Chips for Mass Spectrometry," 1999, IEEE, pp. 523-528.
- AS A124 Whitehouse, Craig M., et al., "Electrospray Interface for Liquid Chromatographs and Mass Spectrometers," March, 1985, Analytical Chemistry, Vol. 57, No. 3, pp. 675-679.

RECEIVED  
MAR 13 2002  
U.S. PATENT & TRADEMARK OFFICE

COPY OF PAPERS  
ORIGINALLY FILED


Examiner:

*Andrew Soderquist*

Date Considered:

*9/12/02*

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant: James E. Moon, et al.  
Serial No.: 09/698,329  
Filing Date: October 27, 2000  
For: 

Att'y Docket No. 14917.1.1

Group: 1741

INTEGRATED MONOLITHIC MICROFABRICATED ELECTROSPRAY AND  
LIQUID CHROMATOGRAPHY SYSTEM AND METHOD

AS A125

Woolley, Adam T., et al., "Ultra-High-Speed DNA Sequencing Using Capillary Electrophoresis Chips," 1995, Analytical Chemistry, 67, pp. 3676-3680.

AS A126

Woolley, et al., "Ultra-High-Speed DNA Fragment Separations Using Microfabricated Capillary Array Electrophoresis Chips," November, 1994, Proc. Natl. Acad. Sci., USA, Vol. 91, pp. 11348-11352.

GS A127

Yoshida, Yu, et al., "Direct Measurement of Mass Fragmentograms for Eluents from a Micro-Liquid Chromatograph Using an Improved Nebulizing Interface," January, 1980, Journal of HRC & CC, Vol. 3, pp. 16-20.

### References Cited by Applicants

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

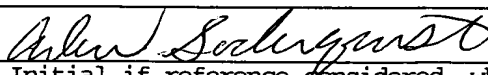
The reference designations "A1," "A2," etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A," "B," "C," etc. on Office Action Form PTO-1142.

G:\DATA\WPDOCS2\BVS\14917-11.149

RECEIVED  
MAR 13 2002  
TC 1/00

COPY OF PAPERS  
ORIGINALLY FILED

Examiner:



Date Considered:

9/12/02

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.